

**REMARKS**

Claims 1-8 are all the claims pending in the application. Claims 3-8 have been withdrawn from consideration pursuant to the Examiner's restriction and election of species requirement.

By this Amendment, Applicants are amending claim 1 and adding new claims 9-11. Claim 9 is believed to be generic to all Species identified by the Examiner.

Applicants thank the Examiner for acknowledging their claim to foreign priority. While the Examiner has properly checked the box on form PTO-326 confirming that the certified copy of the priority document was received, the Examiner states at page 3 of the Office Action that this copy was not filed. Applicants, in fact, filed a certified copy of their priority document with the application. Enclosed is a copy of the first page of the certified copy that was filed, along with the transmittal letter and stamped filing receipt confirming that the copy was filed. The Examiner is kindly requested to review Applicants' file and confirm receipt of the certified copy of the priority document.

Applicants thank the Examiner for initialing the reference listed on form PTO-1449 submitted with the Information Disclosure Statement filed on January 5, 2001.

The Examiner has objected to the drawings, because Fig. 12 includes reference letter "C" designating a cross-section cut that is not shown. Applicants are submitting herewith a proposed drawing change to remove this reference letter. The Examiner is kindly requested to approve this proposed change.

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The Examiner has objected to the specification for the reasons set forth at pages 4-5 of the Office Action. Applicants are amending the specification to overcome the Examiner's objection.

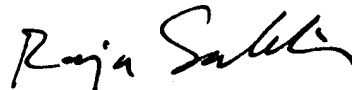
Claims 1 and 2 are rejected under 35 U.S.C. § 112, second paragraph, for the reasons set forth at page 6 of the Office Action. Applicants are amending the claims to overcome this rejection.

Currently, there are no prior art rejections.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Raja Saliba  
Registration No. 43,078

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE



23373

PATENT TRADEMARK OFFICE

Date: April 3, 2003

**APPENDIX**

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE SPECIFICATION:**

**The specification is changed as follows:**

**Paragraph [0014] at page 4:**

[0014] Also, the link 14a and the link 16a are coupled rotatably with ~~one shaft~~<sup>22ft shaft</sup> 20a, ~~and of shaft 20a and shaft 20b provided on both sides of a link 19, whereas the link 14b and the link 16b are coupled rotatably on the other shaft 20b to form a parallel link mechanism, with shaft 20a on one side of link 19 and shaft 20b on the other side of link 19.~~

**Paragraph [0031] at page 8:**

[0031] In addition, as the ascending/descending guide means for maintaining the clearance (i.e., for maintaining and holding the clearance of the cutting blades), the guide bearings 40a and 40b are provided between the lower holder (lower blade portion) 8 and the upper holder (upper blade portion) 11 and the two guide units composed of guide shafts 41 and 42 formed so as to be guided by these bearings and movable in the vertical direction are provided.

**Paragraph [0049] at page 13:**

[0049] FIG. 5 is a frontal view of a cutting apparatus for a welding machine according to the ~~second~~third embodiment of the present invention;

**Paragraph [0055] at page 14:**

[0055] FIG. 11 is a cross-sectional view of a sixth embodiment of the ~~present~~present invention corresponding to FIG. 2;

**Paragraph [0063] at page 15:**

[0063] On the other hand, on the side of the upper blade portion, a guide unit as the ascending/descending guide ~~unit~~means composed of a guide bearing 26a mounted on the carriage C frame 5 as the apparatus frame and a guide shaft 27a guided by the guide bearing 26a for guiding one end of an upper blade holder 50 movably in the vertical direction is provided at one end side of the upper blade holder 50 as the upper blade portion.

**Paragraph [0072] at page 17:**

[0072] In this hydraulic drive means, a trunnion portion of a hydraulic trunnion type cylinder 53 is coupled rotatably with a shaft 52 fitted in a bracket 51 mounted on the top surface side of the carriage C frame 5 as the apparatus frame, and at the same time, a link 56 constituting the upper blade portion ascending/descending link means is coupled rotatably with a tip

end member 54 made ~~by~~of metal ~~54~~ mounted at a tip end of a piston rod of the above-described hydraulic trunnion type cylinder 53 and a shaft 55 fitted in the tip end member made by metal 54.

**Paragraph [0077] at page 19:**

[0077] In this first embodiment, since an upper holder ~~44~~50 as the upper blade portion may be held and moved up and down by the two ascending/descending means of the guide shaft ~~29-27a~~ and the guide bearing 26a, it is possible to reduce the number of the guide units as the ascending/descending means by one. It is easy to perform the maintenance and confirmation work in comparison with the conventional work for adjusting the three guide units as the ascending/descending means.

**Paragraph [0078] at page 19:**

[0078] Also, the hydraulic drive means is provided additionally to the link 56 constituting the upper blade portion ascending/descending link means of the ascending/descending means to form the hydraulic circuit as a control circuit composed of the hydraulic trunnion type cylinder 53 as the above-described hydraulic drive means, its pipe 59, the opening/closing valve (solenoid valve) 58 and the like. Accordingly, for instance, even if the self-holding function is eliminated due to the absence of the pneumatic pressure, it is possible to maintain the up-and-down operation by the above-described hydraulic drive means composed of

the hydraulic trunnion type cylinder 53 and the opening/closing valve 58, and in addition, it is possible to stop the operation of the upper holder ~~44~~50 as the upper blade portion. Accordingly, it is possible to provide circumstances that are very effective for the maintenance and adjustment work.

**Paragraph [0083] at page 21:**

[0083] Incidentally, in Figs. 5 to 8, the same reference numerals are used to indicate the same components or members as those in the first to third embodiments (Figs. 1 to ~~74~~). Accordingly, the explanation therefor will be omitted.

**Paragraph [0087] at page 22:**

[0087] Namely, the upper blade holder 50 is fitted to the guide shaft 49 fixed by the bracket 47 and the bracket 48 mounted on the above-described carriage C frame 5 and is guided by the guide shaft 49 movably in the vertical direction in the same manner as in Figs. ~~4 to 6~~. This co-use ascending/descending guide means has the same structure as that of the foregoing embodiments.

**Paragraph [0093] at page 23:**

[0093] A shaft 34a and a shaft 34b are provided to a link 33 constituting the upper blade portion ascending/descending link, and the link(~~63~~2) and the link ~~30~~28a are coupled rotatably

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with the shaft 34a and the link 28b and the link 30b are coupled rotatably with the shaft 34b to form the parallel link mechanism.

**Paragraph [0112] at page 26:**

[0112] The piston rod 82 is supported to be movable up and down by a guide member 81 within the upper blade holder ~~44~~50 as the upper blade portion or within a guide member 80 within the carriage C frame 5.

**Paragraph [0114] at page 26:**

[0114] According to the fourth embodiment, it is possible to dispense with the guide bearing for the upper blade holder ~~44~~50. Namely, prior to the start of the cutting operation, the piston rod 82 of the guide hydraulic cylinder 83 is lowered and inserted into the guide bearing 12a.

**Paragraph [0118] at page 27:**

[0118] According to the fifth embodiment, it is possible to dispense with the guide bearing for the upper blade holder ~~44~~50 as the upper blade portion.

**Paragraph [0119] at page 28:**

[0119] Namely, in Fig. ~~44~~10 the upper blade holder 50 is guided by the piston rod of the hydraulic cylinder 60 as the hydraulic drive means for maintaining the position and the guide shaft 49 of the co-use ascending/descending guide means and may be moved up and down by the cylinder 37 as the ascending/descending drive means.

**Paragraph [0121] at page 28:**

[0121] However, when necessary, for example, in the case where the electric supply is interrupted due to the stop of the electric supply, the solenoid valve S8 is closed so that the hydraulic cylinder ~~58~~60 does the self-holding function. As a result, the upper blade holder 50 is held in place.

**IN THE CLAIMS:**

**The claims are amended as follows:**

Claim 1. (Amended) A cutting apparatus for a welding machine comprising a pair of upper and lower blade portions facing ~~to~~ each other, an upper blade portion ascending/descending link means for moving the upper blade portion up and down relative to the lower blade portion, a plurality of ascending/descending guide means for guiding abutment between the upper and lower blade portions, and an ascending/descending drive means for ascending/descending the upper blade portion through said upper blade portion ascending/descending link means;



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wherein the plurality of ascending/descending guide means comprises an upper blade portion ascending/descending guide means, a lower blade portion ascending/descending guide means, and an ascending/descending guide means for holding a clearance between the upper and lower blade portions; and

wherein at least one of each of the upper blade portion ascending/descending guide means, the lower blade portion ascending/descending guide means and the ascending/descending guide means for holding a clearance between the upper and lower blade portions is a co-use ascending/descending guide means that is shared by the upper blade portion and the lower blade portion so as to guide both the upper blade portion and the lower blade portion used in common ~~as a co-use ascending/descending means out of said plurality of ascending/descending guide means.~~

**Claims 9-11 are added as new claims.**

日本国特許庁  
PATENT OFFICE  
JAPANESE GOVERNMENT

別紙添付の書類に記載されている事項は下記の出願書類に記載されて  
いる事項と同一であることを証明する。

This is to certify that the annexed is a true copy of the following application as filed  
with this Office.

出願年月日  
Date of Application:

2000年 5月17日

願番号  
Application Number:

特願2000-145230

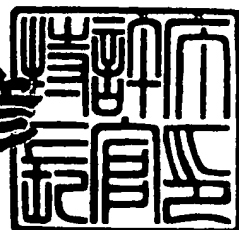
願人  
Applicant(s):

三菱電機株式会社

2000年 6月 9日

特許庁長官  
Commissioner,  
Patent Office

近藤 隆彦



出証番号 出証特2000-304281

LAW OFFICES  
**SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC**  
2100 PENNSYLVANIA AVENUE, N.W.  
WASHINGTON, DC 20037-3213  
TELEPHONE (202) 293-7060  
FACSIMILE (202) 293-7860  
www.sughrue.com

January 5, 2001

**BOX PATENT APPLICATION**

Commissioner for Patents  
Washington, D.C. 20231

Re: Application of Junji MIYATA and Nobuyoshi NAKATANI  
CUTTING APPARATUS FOR WELDING MACHINE  
Our Ref. Q62470

**FILED**

JAN - 5 2001

Dear Sir:

Attached hereto is the application identified above including 34 pages of specification, claims and Abstract, 13 sheets of formal drawing (Figures 1-14), executed Assignment and PTO 1595 form, and executed Declaration/Power of Attorney, an Information Disclosure Statement and PTO form 1449, and the certified priority document.

The Government filing fee is calculated as follows:

Total claims	8 - 20	=		x	\$18.00	=	\$0.00
Independent claims	2 - 3	=		x	\$80.00	=	\$0.00
Base Fee							\$710.00

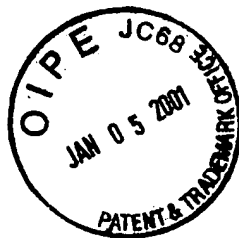
<b>TOTAL FILING FEE</b>	<b>\$710.00</b>
Recordation of Assignment	\$40.00
<b>TOTAL FEE</b>	<b>\$750.00</b>

Checks for the statutory filing fee of \$710.00 and Assignment recordation fee of \$40.00 are attached. You are also directed and authorized to charge or credit any difference or overpayment to Deposit Account No. 19-4880. The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§ 1.16 and 1.17 and any petitions for extension of time under 37 C.F.R. § 1.136 which may be required during the entire pendency of the application to Deposit Account No. 19-4880. A duplicate copy of this transmittal letter is attached.

Priority is claimed from May 17, 2000 based on Japanese Application No. 2000-145230. The priority document is enclosed herewith.

Respectfully submitted,  
SUGHRUE, MION, ZINN,  
MACPEAK & SEAS, PLLC  
Attorneys for Applicant

By: \_\_\_\_\_  
Robert J. Seas, Jr.  
Registration No. 21,092



**REQUEST OF EARLY NOTIFICATION OF SERIAL NUMBER**

Inventor(s): Junji MIYATA and Nobuyoshi NAKATANI \_

Title: CUTTING APPARATUS FOR WELDING MACHINE

Atty Doc. #: Q62470 Client: S. SOGA & CO.

Filing Date: January 5, 2001 # Pgs. Spec/Abst: 33/1 #Claims: 8/2

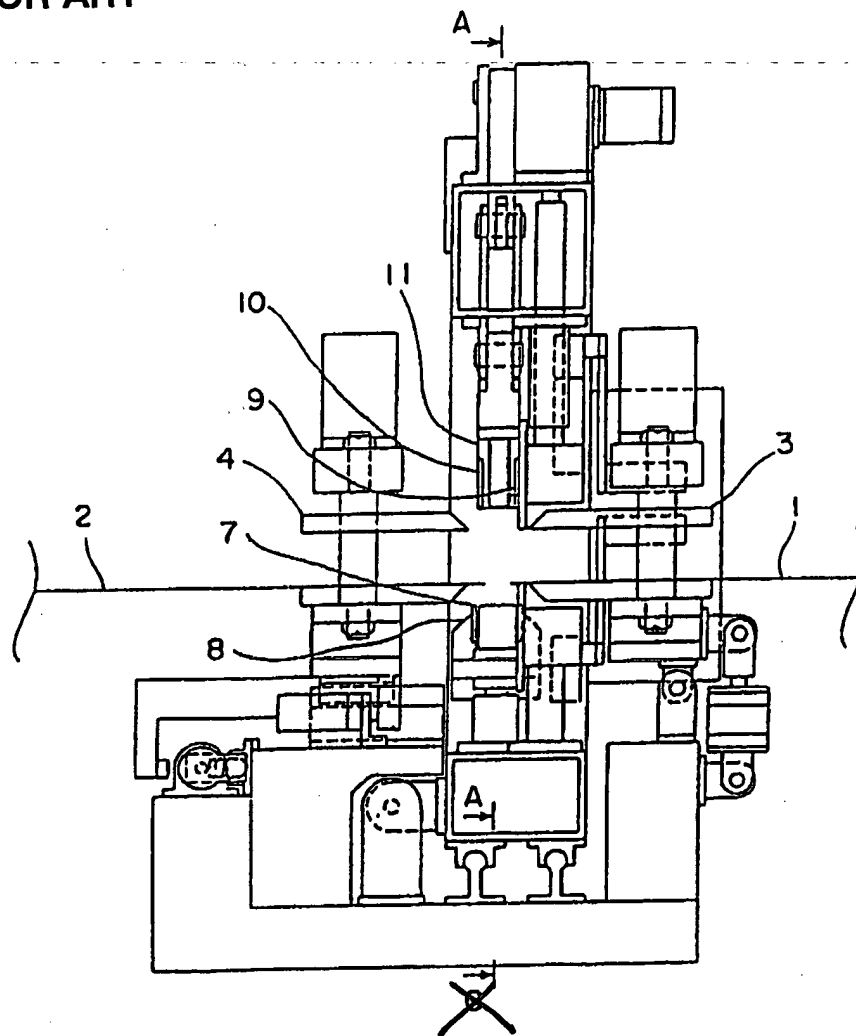
# Dwg. Sheets: 13 Decl yes Prelim Amdt no

IDS/Prior Art: yes Pr Doc: yes Asgmt: yes Fee: \$710/40

X Checks Attached ☐ Charge to Deposit # 19-4880 Atty/Sec: RJS/ds

SERIAL NO

**FIG. 12**  
**PRIOR ART**



Proposed Drawing Change

Approved  
C.D.